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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte YESHIK SHIN, DAVID D. LEE,
DEOG-KYOON JEONG, and SHING KONG

Appeal 2009-003207
Application 10/ 036,135
Technology Center 2600

Before THOMAS S. HAHN, CARL W. WHITEHEAD, JR., and
BRADLEY W. BAUMEISTER, *Administrative Patent Judges*.

HAHN, *Administrative Patent Judge*.

DECISION ON APPEAL¹

Appellants invoke our review under 35 U.S.C. § 134(a) from the final rejection of claims 1-35. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

STATEMENT OF THE CASE

Appellants claim a communications device and method for receiving and transmitting different types of packets, e.g., control and data. Packets of a particular type are transmitted irrespective of the order in which the different packet types are received unless a received packet of a different type from that being transmitted is not transmitted within a certain time period.² Claim 16 is illustrative:

16. A method in a communications device for transmitting packets, the method comprising:

receiving packets in an order, each packet being a first packet type or a second packet type; and

transmitting the received packets in an order that is different from the order in which the packets were received based on whether the packets are a first packet type or a second packet type, unless the transmitting of a packet in the different order would delay the transmitting of a packet more than a certain amount of time.

The Examiner relies on the following prior art references to show unpatentability:³

| | | |
|---------|--------------------|---------------|
| Cidon | US 5,343,473 | Aug. 30, 1994 |
| Ellis | US 5,497,371 | Mar. 5, 1996 |
| Burnett | US 5,703,875 | Dec. 30, 1997 |
| Li | US 5,757,771 | May 26, 1998 |
| Howe | US 2003/0189922 A1 | Oct. 9, 2003 |

² See generally Spec. ¶¶ [0103]-[0104]; Fig. 10.

³ Effective filing dates for these documents precede Appellants' earliest effective filing date and are not at issue.

The Examiner, under 35 U.S.C. § 102(b), rejected claims 16 and 19-23 as being anticipated by Li (Ans. 3-4).

The Examiner, under 35 U.S.C. § 103(a), rejected:

1. Claims 1-8, 12, 14-23, 25-30, 32, 34, and 35 as unpatentable over Burnett and Li (Ans. 4-9);
2. Claim 9 as unpatentable over Burnett, Li, and Ellis (Ans. 9);
3. Claims 13, 24, and 33 as unpatentable over Burnett, Li, and Howe (Ans. 9-10);
4. Claims 10, 11, and 31 as unpatentable over Burnett, Li, and Cidon (Ans. 10-11); and
5. Claims 17 and 18 as unpatentable over Li (Ans. 11).

APPELLANTS' CONTENTIONS

Appellants group claims 16 and 19-23 that are rejected as being anticipated by Li (Br. 5-6). From this group Appellants only separately argue independent claim 16 as reciting elements not taught by Li (Br. 6). Accordingly, we select claim 16 as representative for this group pursuant to our authority under 37 C.F.R. § 41.37(c)(1)(vii). Specifically, Appellants contend that Li fails to teach “selecting which traffic to transmit based on the type of packet” and also “selecting a transmission order based on the amount of delay of transmitting a packet” (*id.*).

Appellants group claims 1-35 that are rejected as being obvious over the various cited references (Br. 9-12). From this group Appellants only separately argue that independent claim 1 recites elements not taught by Burnett or Li, or any proper combination of these references (*id.*).

Accordingly, we select claim 1 as representative for this group pursuant to our authority under 37 C.F.R. § 41.37(c)(1)(vii). Appellants continue in contending that Li is deficient in its teachings because of the same deficiencies as are asserted against the reference for failing to anticipate claimed elements. These contentions also are asserted against Burnett (Br. 9). Appellants further contend that there is no suggestion or motivation to combine Burnett and Li because “Burnett is concerned with transmitting control messages before data messages,” and “Li also does not recognize any problems with delaying data packets in order to transmit control packets” (Br. 11).

ISSUES

The pivotal issues raised by the Appellants’ contentions are:

1. Does Li, under § 102(b), teach transmitting packets based on packet type and also transmitting a packet of a different type if the packet has been delayed from transmission for more than a certain time as recited in representative claim 16?
2. Did the Examiner err in combining Burnett and Li, under § 103(a), because there is no motivation or suggestion to combine these references?

PRINCIPLE OF LAW

The scope of examined claim limitations is determined by giving the terms in the claims their ordinary and accustomed meaning while interpreting the claims as broadly as is reasonable and consistent with the specification. *See In re Thrift*, 298 F.3d 1357, 1364 (Fed. Cir. 2002).

ANALYSIS

Anticipation Rejection of Claims 16 and 19-23

We do not agree with Appellants that Li fails to teach transmitting packets based on packet type and also transmitting a packet of a different type if the packet has been delayed from transmission for more than a certain time as recited in representative claim 16.

The Examiner quotes representative claim 16 as *inter alia* reciting “transmitting the received packets in an order that is different from the order in which the packets were received based on whether the packets are a first packet type or a second packet type” (Ans. 13). Based on the record, we find that the claimed first and second packet types are broadly recited without narrowing limitations. *See Thrift*, 298 F.3d at 1364.

In accordance with this interpretation, the Examiner finds Li teaches queuing received packets of first and second types, namely voice packets being constant bit rate (CBR) packets and data packets being variable bit rate (VBR) packets (*id.*). On reviewing Li, we adopt these findings (*see* column 3, lines 3-14), and we also agree with the Examiner’s finding that the recited first and second packet types read on Li’s CBR and VBR packets. The Examiner further finds Li teaches that CBR packets have higher output priority than VBR packets, and, therefore, CBR packets are forwarded “out of the queue before forwarding [a] VBR packet, even [though a] CBR packet [is] received after [a] VBR packet, See col. 5, lines 10-25, col. 7, lines 40-47” (Ans. 13). Again, after reviewing Li, we adopt the Examiner’s findings, and we also agree with the Examiner’s finding the representative claim 16 recited transmitting packets based on packet type reads on Li’s teachings.

Finally, the Examiner finds that Li at:

Col. 4, lines 30-44, col. 9, lines 35-46 and Fig 3 and Fig 4, disclose[s] before forwarding a packet from a queue having a higher output priority, the switch checks if a packet in a queue with a lower output priority which is waiting for transmitting out of the queue, exceeded a delay threshold or determined period of time. If yes, then the packet VBR data in the low output priority queue is forwarded before CBR voice; otherwise, the packet CBR voice is forwarded[.]

(*Id.*) From our review of Li we adopt these findings. We also agree with the Examiner's finding the representative claim 16 recited transmission of a packet of a different type if the different type packet has been delayed from transmission for more than a certain time as reading on Li teachings.

For the forgoing reasons, we will sustain the rejection of representative claim 16. We will also sustain the rejection of the other grouped claims 19-23 that are not separately argued.

Obviousness Rejection of Claims 1-35

Representative claim 1 recites:

1. A method in a communications device for transmitting packets, the method comprising:

receiving packets;

storing the received packets in memory of the communications device; when the stored packets include a control packet and a data packet,

determining whether the data packet has been delayed more than a certain amount of time;

when it is determined that the data packet has been delayed more than the certain amount of time, selecting the data packet; and

when it is determined that the data packet has not been delayed more than the certain amount of time, selecting the control packet;

retrieving the selected packet from memory of the communications device; and

transmitting the retrieved packet.

We do not agree with Appellants' contention that there is "no disclosure in either reference of selecting a packet to be transmitted based on the type of the packet and based on a delay of transmission of a packet" (Br. 9). We address *supra* that Li teaches such elements. Further, we do not agree with Appellants' contention that there is no suggestion or motivation to combine Burnett and Li (Br. 10).⁴

The Examiner finds Burnett teaches receiving and transmitting data and control packets. We adopt these Examiner findings (*see* column 2, lines 1-9). The Examiner further finds and concludes that:

[I]t would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and system for transmitting a low priority packet type before high priority packet type if the waiting time of the low priority packet is [sic] exceeds a delay threshold as disclosed by Li into the method and system of Burnett. The motivation would have been to provide a fairness service by providing a low priority packet type with a minimum bandwidth so that the high priority

⁴ Appellants also assert without reference to evidence that "Burnett is concerned with transmitting control messages before data messages, and structurally cannot accommodate prioritizing data messages over control messages" (Br. 11). Such arguments are unavailing because "'arguments of counsel cannot take the place of evidence lacking in the record.'" *Estee Lauder, Inc. v. L'Oreal, S.A.*, 129 F.3d 588, 595 (Fed. Cir. 1997) (citations omitted).

packet type is not continuously preempted [sic] the low priority packet or starving the lower priority packet type (Col. 11, lines 10-22).

(Ans. 17.)

Appellants do not address the Examiner's finding of motivation for combining references from "provid[ing] . . . fairness [of] service" (Final Action, p. 5, (mailed Mar. 27, 2007)). Instead, Appellants argue that "[t]here is no disclosure in Burnett that delaying data messages could be problematic," and "Li also does not recognize any problems with delaying data packets in order to transmit control packets" (Br. 11). With respect to Li, we find Appellants' contention unavailing because we find Li does recognize problems with delaying transmission of packets based on packet type (*see supra*). Further, from reviewing the Li disclosures at column 11, lines 10-22, which are cited by the Examiner, we specifically find the reference teaches that advancing packet transmission based on a threshold delay provides:

[A] method [that] allows for assuring each data sub-queue some minimum bandwidth, which may be measured as some number of data cells per unit time. *Without this method, certain users on a network may be continuously preempted by other users who have higher output priority.* In such situations, with the present method, these preempted users may not be able to use the network for long periods of time. This method alleviates this problem by providing each user with a minimum bandwidth. In addition, this method provides a network provider with better control over how much bandwidth each user can be expected to have, allowing the network provider to better guarantee a certain level of service for a user.

(Emphasis added.)

As an initial matter, the Examiner does not rely on Burnett for teaching that any type of packet should be transmitted out of order after a delay threshold. The Examiner instead finds, and we agree, that Li teaches such a method. We additionally agree with the Examiner's finding that Li teaches that using a threshold delay for advancing packet type transmission provides bandwidth and service fairness advantages, which supplies motivation to modify Burnett with Li.

In the absence of a challenge to the Examiner's conclusion, we will sustain the obviousness rejection of representative claim 1, and we will also sustain the obviousness rejection of the other grouped claims 2-35.⁵

ORDER

The Examiner's decision rejecting claims 1-35 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(v).

AFFIRMED

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⁵ Appellants contest that claims 16 and 19-23 are improperly rejected under 35 U.S.C. § 103(a) because these claims also are rejected as being anticipated by Li (Br. 12). This argument is unavailing because "a rejection for obviousness under § 103 can be based on a reference which happens to anticipate the claimed subject matter." *In re Meyer*, 599 F.2d 1026, 1031 (CCPA 1979).